



US005218187A

**United States Patent [19]**

Koenck et al.

[11] Patent Number: **5,218,187**[45] Date of Patent: **Jun. 8, 1993**[54] **HAND-HELD DATA CAPTURE SYSTEM WITH INTERCHANGEABLE MODULES**

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[21] Appl. No.: 660,615

[22] Filed: Feb. 25, 1991

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 467,096, Jan. 18, 1990, Pat. No. 5,052,020, filed as PCT/US90/03286, Jun. 7, 1990.

[51] Int. Cl.<sup>5</sup> ..... G06F 15/20

[52] U.S. Cl. ..... 235/375; 235/462; 235/472

[58] Field of Search ..... 235/462, 470, 472, 375

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[57]

**ABSTRACT**

A portable, hand-held data terminal of modular structure includes a base module with a keyboard and a display screen. A data and communications module may be selected from a number of different data and communications modules, each having different types of data communications transceivers, or including in addition data collection devices, such as shelf label readers or bar code readers. The base module includes a microprocessor-controlled data communications and control interface having a predetermined protocol. To adapt the various types of data and communications modules for selection of any one thereof to become attached to the base module and function therewith, each of the data and communications modules includes a microprocessor operable to function as an emulator to interact with the microprocessor of the base module and communicate with the microprocessor of the base module in accordance with the protocol of the data communications and control interface of the base module.

**10 Claims, 5 Drawing Sheets**

